



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER FOR PATENTS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
-----------------	-------------	----------------------	---------------------	------------------

10/619,364

07/14/2003

Philip Head

22618

6817

535

7590

01/23/2006

THE FIRM OF KARL F ROSS  
5676 RIVERDALE AVENUE  
PO BOX 900  
RIVERDALE (BRONX), NY 10471-0900

EXAMINER

GAY, JENNIFER HAWKINS

ART UNIT

PAPER NUMBER

3672

DATE MAILED: 01/23/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

10/619,364

Applicant(s)

HEAD, PHILIP

Examiner

Jennifer H. Gay

Art Unit

3672

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 01 December 2005.  
2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 20,21 and 24-46 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☒ Claim(s) 20,21,24-28 and 36-46 is/are allowed.  
6) ☒ Claim(s) 29,30 and 32-35 is/are rejected.  
7) ☒ Claim(s) 31 is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)  
3) ☐ Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)  
Paper No(s)/Mail Date \_\_\_\_\_.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date. \_\_\_\_\_.  
5) ☐ Notice of Informal Patent Application (PTO-152)  
6) ☐ Other: \_\_\_\_\_.

## DETAILED ACTION

### ***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 29 and 33 are rejected under 35 U.S.C. 103(a) as being unpatentable over Messenger (US 4,368,787) in view of Tullos et al (US 4,258,802).

*Regarding claim 29:* Messenger discloses an apparatus for drilling a wellbore that includes the following features:

- A drilling unit including a drill bit **19** where the unit is rotated from the surface (Abstract).
- A tubing **21** from which the unit is suspended.
- A pumping means **31** for drawing fluid from the annulus between the tubing and the wall of the wellbore and up through a central bore of the tubing (6:52-66).

Messenger discloses all of the limitations of the above claims except for the tubing and unit being rotated by a downhole motor.

Tullos et al. discloses a drilling system. Tullos et al. also discloses that is well known in the art that a drilling unit can be rotated either by a rotary table or a downhole motor thus teaching the functional equivalence of the two rotary means.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the apparatus of Messenger to include a downhole motor as taught by Tullos et al. in order to have eliminated the power drains associated with drilling a deep well using a rotary table to turn the drill bit (1:37-45).

Further, it would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have rotated the apparatus of Messenger with a downhole motor instead of a rotary table, since the examiner takes Official Notice of the

equivalence of a rotary table and a downhole motor for their use in the drilling art and the selection of any of these known equivalents to rotate the apparatus of Messenger would be within the level of ordinary skill in the art as evidenced by Tullos et al.

*Regarding claim 29, 33:* The pump means includes several pumps located downhole at different locations within the bore of the tubing.

3. Claim 30 is rejected under 35 U.S.C. 103(a) as being unpatentable over Messenger in view of Tullos et al. as applied to claims 20, 29, and 36 above, and further in view of Dorel (US 6,047,1784).

Messenger in view of Tullos et al. discloses all of the limitations of the above claims except for motor being electrical where a cable disposed along the tubing supplied the electrical power.

Dorel discloses a drilling system. The system involves the use of a downhole electric motor 13 where a cable 5 supplies the electrical power to the motor.

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the apparatus of Messenger in view of Tullos et al. to include an electrical motor such as that taught by Dorel in order to have used a motor that was capable of rotating the drill bit without the need for hydraulic fluid or a downhole battery.

4. Claim 32 is rejected under 35 U.S.C. 103(a) as being unpatentable over Messenger in view of Tullos et al. as applied to claims 20, 29, and 36 above, and further in view of Wallussek et al. (US 4,596,293).

Messenger in view of Tullos et al. discloses all of the limitations of the above claims except for the pump being located in the annulus upon the outer surface of the tubing.

Wallussek et al. further teaches that the drilling unit includes an inner and outer tube with the pump 10 being located on the outer surface of the inner tube (Figure 3).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the apparatus of Messenger in view of

Art Unit: 3672

Tullos et al. so that the pump was located on the outer surface of the tubing as taught by Wallussek et al. in order to have not inhibited the flow of fluid through the bore of the tubing thus not effecting the pressure within the tubing.

5. Claims 34 and 35 are rejected under 35 U.S.C. 103(a) as being unpatentable over Messenger in view of Tullos et al. as applied to claims 20, 29, and 36 above, and further in view of Portman et al. (US 6,561,289).

Messenger in view of Tullos et al. discloses all of the limitations of the above claims except for the apparatus including sensors for monitoring the motor and drill bit as well as directional sensors.

Portman et al. discloses a drilling system. The system includes sensors for monitoring the motor and drill bit, i.e. the speed and location of the bit (14:64-15:34).

It would have been considered obvious to one of ordinary skill in the art, at the time the invention was made, to have modified the apparatus of Messenger in view of Tullos et al. to include sensors to monitor the motor and drill bit as well as directional sensors as taught by Portman et al. in order to have provided a means for constantly monitoring the progress of the drilling apparatus thus enabling an operator to be make corrections to the apparatus and drilling direction when necessary.

#### ***Allowable Subject Matter***

6. Claims 20, 21, 24-28, and 36-46 allowed.

7. Claim 31 is objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

#### ***Response to Arguments***

8. In view of applicant's amendment, the objection to the claims has been withdrawn.

9. Applicant's arguments filed December 01 2005 have been fully considered but they are not persuasive.

Applicant has argued that Tullos cannot be combined with Messenger because it is not apparent how the system of Messenger can be used with a drill bit that is driven by a downhole motor. In response, the examiner notes that the pumps of Messenger are “mechanically” driven by the rotation of the rollers of the bit. A motor used to rotate the drill bit and thus the rollers would not interfere with the operation of the pumps, as the rollers would still rotate thus actuating the pumps.

Applicant has argued that it would not have been obvious to combine the electrical motor of Dorel with the assembly of Messenger in view of Tullos. In response, the examiner notes that Dorel has been used merely to teach that it was well known in the art to provide power to downhole electrical motors using a power cable.

10. Applicant’s arguments filed December 01 2005 with respect to the Wallussek reference have been fully considered and are persuasive. The rejection of claims 23, 25, 31, 32, 37, and 39 has been withdrawn. It is noted that, based on applicant’s arguments and the amendments made thereto, it has been found that Wallussek could not be used to reject claims 20, 36, 44, and 46.

### ***Conclusion***

11. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

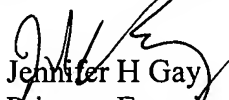
A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

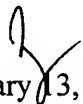
Art Unit: 3672

12. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jennifer H. Gay whose telephone number is (571) 272-7029. The examiner can normally be reached on Monday-Thursday, 6:30-4:00 and Friday, 6:30-1:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David Bagnell can be reached on (571) 272-6999. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

  
Jennifer H Gay  
Primary Examiner  
Art Unit 3672

JHG   
January 13, 2006